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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,769	04/30/2001	Ken Ikoma	33555	2183
116	7590	09/15/2005	EXAMINER	
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			AGGARWAL, YOGESH K	
			ART UNIT	PAPER NUMBER
			2615	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,769

Applicant(s)

IKOMA ET AL.

Examiner

Yogesh K. Aggarwal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments with respect to claims 2-8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4, 5, 8, 2, 3/2 and 3/8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beis (US Patent # 5,172,220) in view of Yu et al. (US Patent # 6,611,289).

[Claim 4]

Beis teaches a method of switching an optical filter of a camera (figure 1) comprising forming an image on an image pick-up element (4 and 11) through a lens (1) provided on a camera body converting the image into an electric signal through the image pick-up element, thereby obtaining an image signal (col. 3 lines 59-68). Beis teaches that during low light level (below a threshold value) a light beam is incident upon a black and white sensor 4 via a reflector 3 (col. 3 line 59 –col. 4 line 12). Beis further teaches that a switch 8 is connected to reflector 3, so that when the intensity of light exceeds a threshold value (e.g. during daytime), the switch 8 (acts as a detecting means) causes the reflector 3 to be pivoted from the full line position to the broken line position 3a so that the light beam 2 is then reflected to a color image sensor 11 (col. 4 lines 13-

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28) having a color optical filter or an infra-red filter (col. 6 lines 30-39) and therefore automatically switches from a black and white sensor to a color sensor having a color optical filter or an infra-red filter provided on a front surface of the image pick-up element depending on the signal level detected by the detecting means (col. 4 lines 4-28, figure 1: 3).

Therefore Beis teaches switching automatically between a color sensor having a color filter and a black and white sensor. Beis does not explicitly teach whether a transparent filter is provided or not on to the black and white sensor. However Yu teaches a B/W sensor 308 that is not provided with any color filters but is present with a transparent filter or no filter (col. 10 lines 17-25) in order to have an image sensor that can capture full information including details that may be missed by those color image sensors so that a high quality image and film-like digital image can be formed.

Therefore taking the combined teachings of Beis and Yu, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have a transparent filter on a black and white sensor as taught in Yu implemented into the system of Beis to have an automatically optical filter switching means that switches between a first optical filter and a second optical filter. The benefit of doing so would be to have an image sensor that can capture full information including details that may be missed by those color image sensors so that a high quality image and film-like digital image can be formed as taught in Yu (col. 10 lines 20-25).

[Claim 5]

Beis teaches a method of switching a color optical filter that includes a color filter (figure 1: 11) having a color optical filter or an infra-red filter (col. 6 lines 30-39) and a black-and-white sensor (4 and 53), wherein the optical filter is switched into the color filter to obtain a color image

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during the day with a high image signal level, and switched into the black-and-white sensor at night with a low image signal level (col. 4 lines 49-53, col. 6 lines 40-45). Yu teaches a B/W sensor 308 that is not provided with any color filters but is present with a transparent filter or no filter (col. 10 lines 17-25). Therefore taking the combined teachings of Beis and Yu, an automatically optical filter switching means that switches between a first optical filter (color filter) and a second optical filter (black and white filter) is taught.

[Claim 8]

Beis teaches a camera (figure 1) comprising a lens (1) provided on a camera body an image pick-up element (4 and 11) for converting an image provided by the lens into an electric image signal (col. 3 lines 59-68), a color image sensor 11 (col. 4 lines 13-28) having a color optical filter or an infra-red filter (col. 6 lines 30-39). Beis teaches that during low light level (below a threshold value) a light beam is incident upon a black and white sensor 4 via a reflector 3 (col. 3 line 59 – col. 4 line 12). Beis further teaches that a switch 8 is connected to reflector 3, so that when the intensity of light exceeds a threshold value (e.g. during daytime), the switch 8 (acts as a detecting means) causes the reflector 3 to be pivoted from the full line position to the broken line position 3a so that the light beam 2 is then reflected to a color image sensor 11 (col. 4 lines 13-28) having a color optical filter or an infra-red filter (col. 6 lines 30-39) and therefore automatically switches from a black and white sensor to a color sensor having a color optical filter or an infra-red filter provided on a front surface of the image pick-up element depending on the signal level detected by the detecting means (col. 4 lines 4-28, figure 1: 3).

Therefore Beis teaches switching automatically between a color sensor having a color filter and a black and white sensor. Beis does not explicitly teach whether a transparent filter is

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provided or not on to the black and white sensor. However Yu teaches a B/W sensor 308 that is not provided with any color filters but is present with a transparent filter or no filter (col. 10 lines 17-25) in order to have an image sensor that can capture full information including details that may be missed by those color image sensors so that a high quality image and film-like digital image can be formed.

Therefore taking the combined teachings of Beis and Yu, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have a transparent filter on a black and white sensor as taught in Yu implemented into the system of Beis to have an automatically optical filter switching means that switches between a first optical filter and a second optical filter. The benefit of doing so would be to have an image sensor that can capture full information including details that may be missed by those color image sensors so that a high quality image and film-like digital image can be formed as taught in Yu (col. 10 lines 20-25).

[Claim 2]

This is an apparatus claim corresponding to method claim 5. Therefore it has been analyzed and rejected based upon method claim 5.

[Claims 3/2, 3/8]

Beis teaches detecting means (figure 1: 8) which detects a level of the image signal output from the image pick up element (figure 1: 4 and 11), wherein the color optical filter is automatically switched from a black and white sensor depending on the signal level thus detected (col. 4 lines 4-28). Yu teaches a B/W sensor 308 that is not provided with any color filters but is present with a transparent filter or no filter (col. 10 lines 17-25).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beis (US Patent # 5,172,220), Yu et al. (US Patent # 6,611,289) and in further view of Fukushima (US Patent # 5,903,700).

[Claims 6 and 7]

Beis in view of Yu teaches switching between the first and second optical filter as explained in claims 4 and 5 but fails to teach, "... wherein character information indicating the switching is output through display means and is displayed together with an image on a monitor when the optical filter is switched from the color filter into the black-and-white filter and wherein character information about the black-and-white image displayed on the monitor when an image pick-up environment in which the camera body picks up an image is detected by a sensor and a color image is automatically switched into black-and-white image". However Fukushima teaches that it is well known in the art to have an icon for a particular camera be displayed on the monitor 100 wherein a colored icon represents a color camera and a black and white icon represents B/W camera (col. 10 lines 41-46). In light of the teachings of Beis, Yu and Beis it would have been obvious to one skilled in the art at the time of the invention to have been motivated to have an icon be replaced with characters to show the switching information from B/W to color camera and character information about the black-and-white image be displayed on

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a monitor. The benefit of doing so would be to discriminate between a color camera and a black-and-white camera as taught in Fukushima (col. 10 lines 41-42).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.


7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YKA

September 12, 2005



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EXAMINER